



# **Aras Variant Management**

## **12.0R1**

### **Installation Guide**

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# Document Conventions

The following table highlights the document conventions used in the document:

Document Conventions:

Convention	Description
<b>Bold</b>	Emphasizes the names of menu items, dialog boxes, dialog box elements, and commands. Example: Click <b>OK</b> .
Code	Code examples appear in <code>courier</code> font. It may represent text you type or data you read.
Yellow highlight	Code highlighted in yellow draws attention to the code that is being indicated in the content.
Yellow highlight with red text	Red text highlighted in yellow indicates the code parameter that needs to be changed or replaced.
<i>Italics</i>	Reference to other documents.
<b>Note:</b>	Notes contain additional useful information.
<b>Warning</b>	Warnings contain important information. Pay special attention to information highlighted this way.
Successive menu choices	Successive menu choices may appear with a greater than sign (-->) between the items that you select consecutively. Example: Navigate to <b>File</b> → <b>Save</b> → <b>OK</b> .

# 1 Introduction

---

## 1.1 Purpose

The *Installation Guide* describes how to install Aras Variant Management 12.0 R1, a hotfix for Configurator Services, and the optional Variant Management Extension for Product Engineering.

## 1.2 Scope

The *Installation Guide* explains the installation process for installing Variant Management 12.0 R1 for Aras Innovator and the optional Variant Management Extension for Product Engineering. The installation involves updates to both the code tree and database.

## 1.3 Target Audience

This *Installation Guide* is intended for Aras Innovator administrators.

## 2 Prerequisites

Before proceeding, users need to have the Aras Conversion Server and Agent Service installed. They are used for updating user-friendly string notations for Rule and Usage Condition expressions when referenced Feature and Option names are updated.

**Note:** For instructions on installation the Conversion Server and Agent Service, see the *Aras Innovator – Installation Guide*.

To install Aras Variant Management 12.0 R1, users need to confirm that the installation of Aras Innovator meets the minimum requirements to run Aras Variant Management.

### 2.1 Checking for Eligibility

Please use the following steps to check if the code tree and database are eligible to apply Variant Management 12.0 R1.

1. Log in to Aras Innovator as an administrator
2. Click on the user icon in the top-right corner → **About**
3. Confirm that the build number shown is 31975
4. Confirm that the MS Build Number shown is 000000.00
5. From the TOC, select **Administration** → **Variables**
6. Confirm the following variables are listed:


VersionMajor	VersionServicePack	MSBuildNumber
12	SP18	000000.00

If it does not meet the service pack requirements listed in the previous steps, contact Aras to discuss options.

## 3 Installing Variant Management

Aras Variant Management must modify the Aras Innovator database with the metadata required to run the application. Before applying these changes, you should confirm you have all required components.

### Requirements:

- Aras Innovator 12.0 SP18
-  Aras Update Tool 1.17+  
or
- Aras Innovator Package Import Export Utilities

### 3.1 Notification and Backup

7. Notify users that the system will be down at a scheduled time, and they should log out of the system prior to the start of the process.

**Note:** It is best to give at least 24-hour notice, as well as a reminder 15 minutes prior to the upgrade.













1. Backup the code tree:

The “Code Tree” refers to files and folders installed to the disk when Aras Innovator was first installed.

The default path for the Code Tree installation would be something similar to:

C:\Program Files (x86)\Aras\Innovator

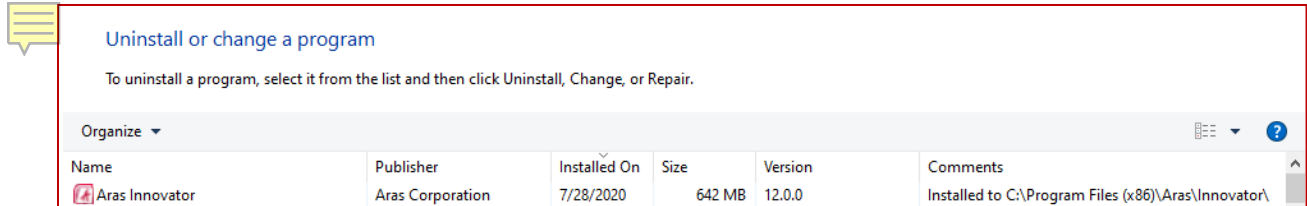
With the following contents:

Name	Type	Size
 AgentService	File folder	
 ConversionServer	File folder	
 DB	File folder	
 Innovator	File folder	
 OAuthServer	File folder	
 SelfServiceReporting	File folder	
 Tools	File folder	
 VaultServer	File folder	
 ConversionServerConfig	XML File	1 KB
 InnovatorServerConfig	XML File	2 KB
 SelfServiceReportConfig	XML File	1 KB
 VaultServerConfig	XML File	1 KB

You can confirm the installation folder with the following steps:

- a. From the Start Menu, select **Start → Control Panel**

- b. From the **Control Panel**, select **Programs and Features**
- c. Right-click on the “**Name**” column header and select **More...**
  - i. Select the **Comments** header if it is not checked
  - ii. Click **OK**
- d. Search for the **Aras Innovator** entry in the **Programs and Features** window.
- e. View the value set in the **Comments** column for the Aras Innovator entry:



Once you have determined where the code tree is installed, back up the folder and all of its contents.

2. Disconnect all users from the database.

The easiest way to prevent client sessions from committing any further changes to the database is to change the database connection string in the `InnovatorServerConfig.xml` from `<DB-Connection...` to `<xDB-Connection` and restart the `w3svc` service (IIS). This expires all session and prevents all new connections to the Aras Innovator database through the existing instance.

3. Backup the database.
4. Place these files in a safe location, as they will be needed to restore if the process fails.
5. Enable database connections.

After your database backup has completed, you can enable the database connection string in the `InnovatorServerConfig.xml` by simply changing it from `<xDB-Connection...` to `<DB-Connection` and restarting the `w3svc` service (IIS).

## 3.2 Installing the Aras Variant Management application

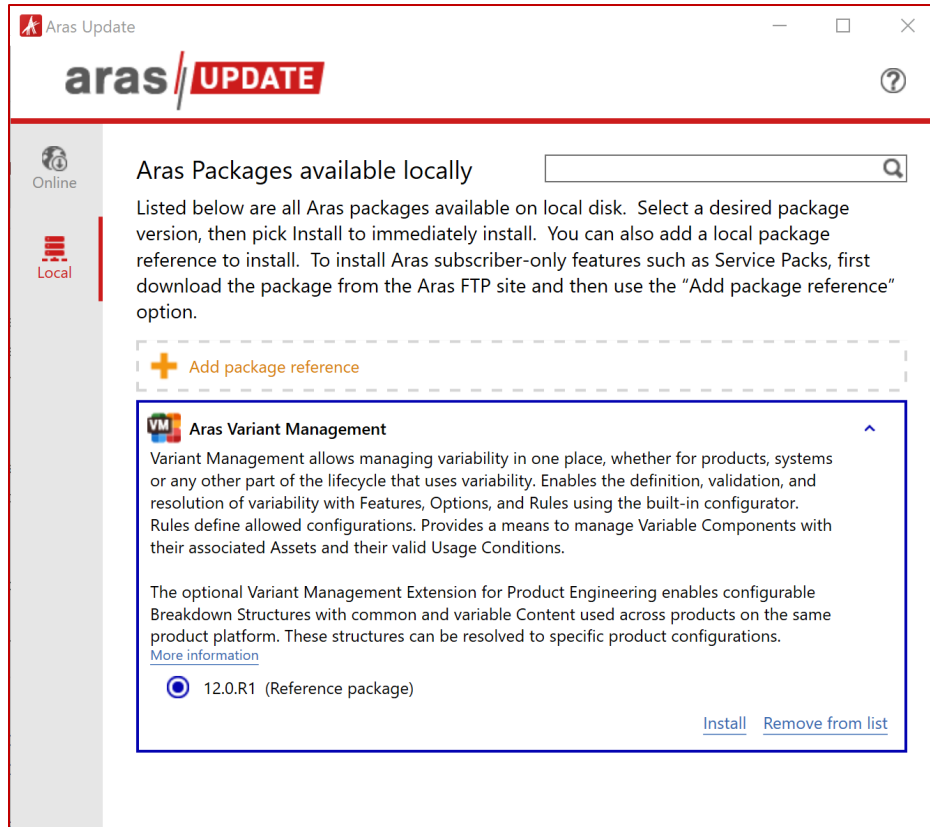
It is possible to install Aras Variant Management using either the Automated Installation option (using the Aras Update tool) or the Manual Installation option (using the Aras Import Tool).

The automated installation option may not work in a distributed Aras Innovator environment. The manual installation option is recommended when installing Aras Variant Management in a distributed Aras Innovator environment.

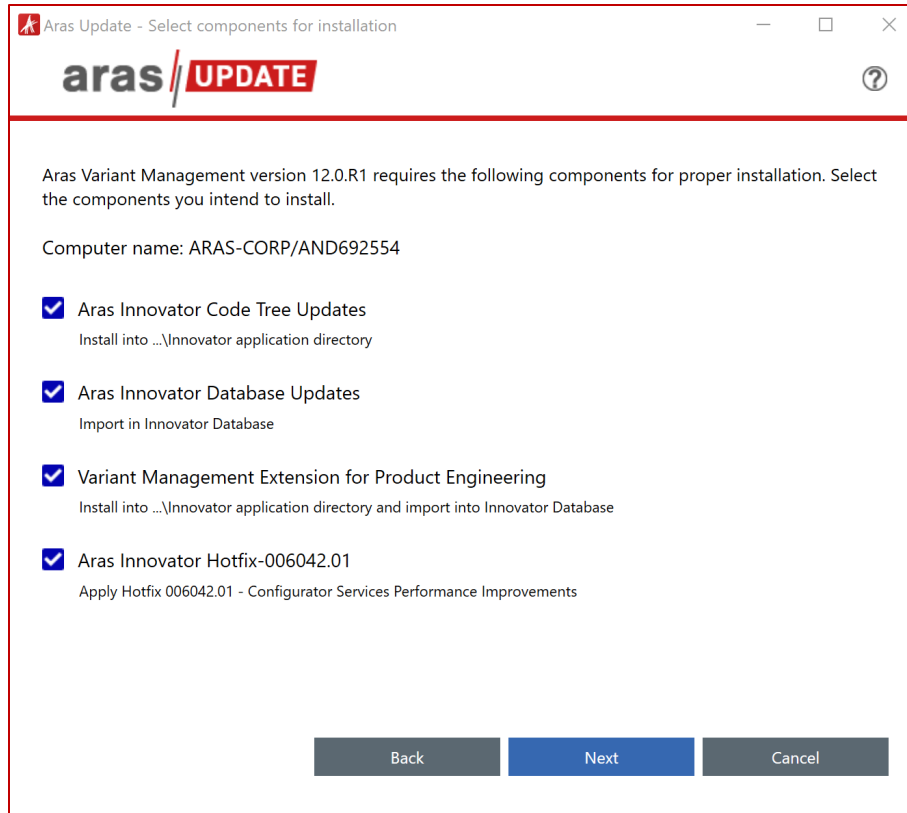
### 3.2.1 Automated Installation Option

1. Copy and unzip the Aras Variant Management CD Image on the local computer.
2. Enable the Super User login.
3. Launch the **ArasUpdate.exe** file as administrator.

4. On a default installation, the ArasUpdate.exe file can be found in the C:\Program Files (x86)\Aras\Aras Update\ directory.
5. Find and expand the Variant Management package and click **Install**. Aras Update should download the required package.



6. Select the **Aras Innovator Code Tree Updates**, **Aras Innovator Database Updates**, and **Aras Hotfix-006042.01** options.
7. (Optional) Select the Variant Management Extension for Product Engineering option.
8. Click the **Next** button.



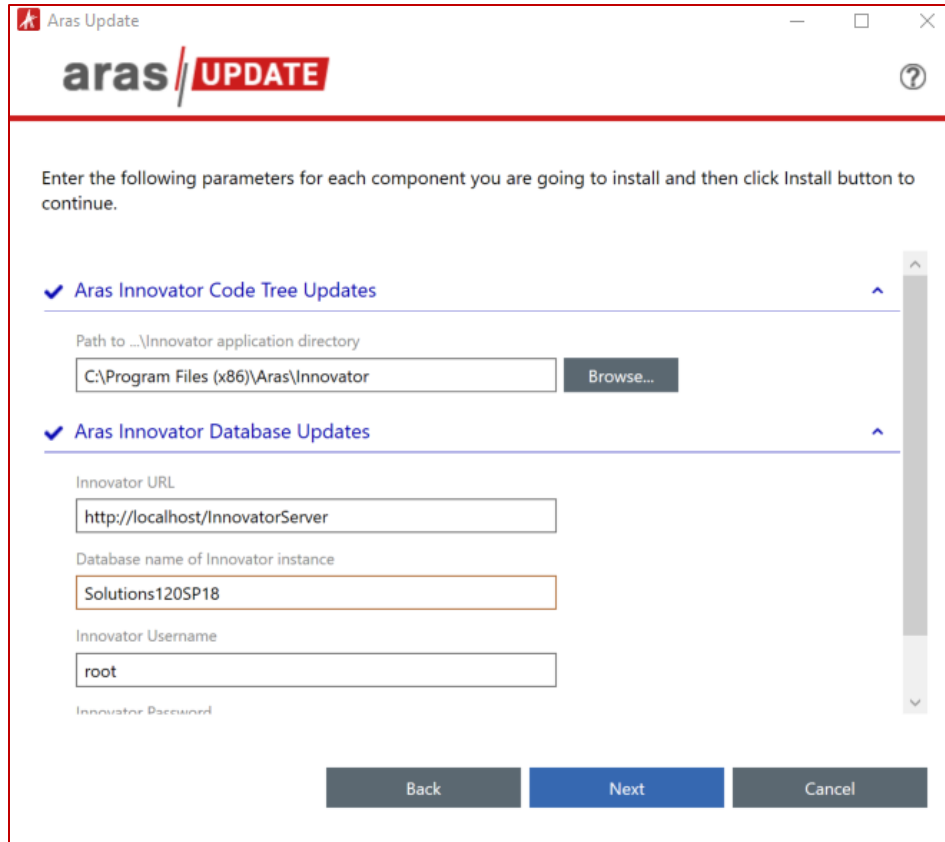
9. Select the appropriate logging option and click **Next**.

The logging option is used to record the installation attempt and can be used to troubleshoot issues.

10. Input the connection information and click **Next**.

- **Server URL** = The connection URL for Aras Innovator
- **Database** = The target Aras Innovator database
- **Username** = root
- **Password** = Password for “root” login (Default is “innovator”)

Aras Update should import everything required for Aras Innovator Variant Management.

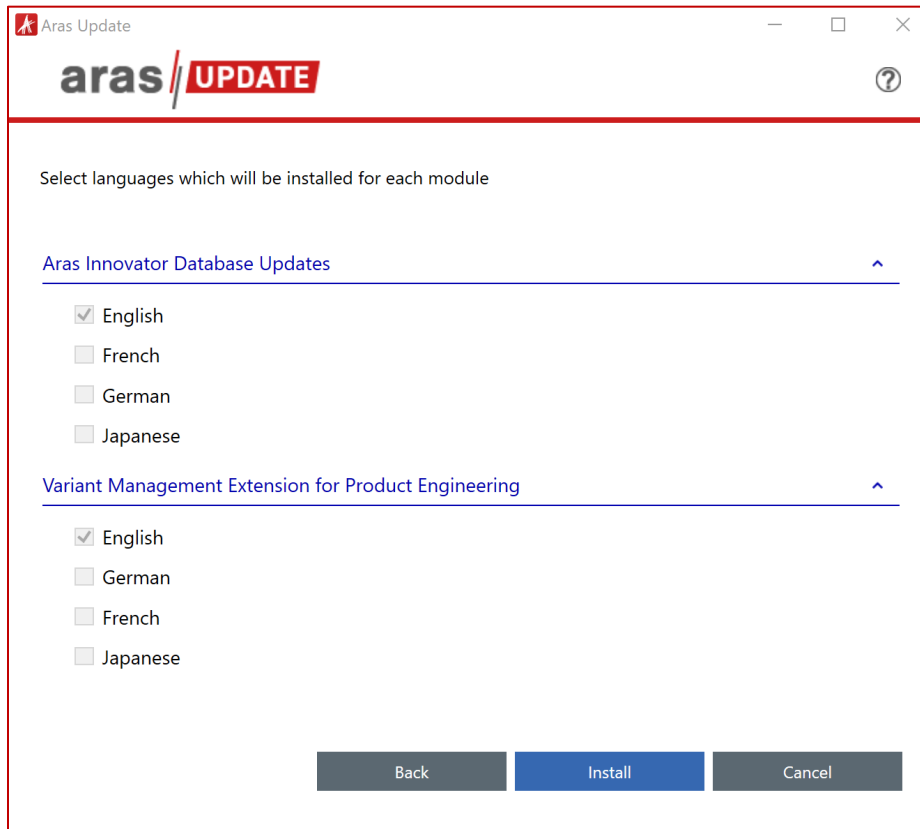


The image shows a screenshot of the 'Aras Update' installation window. The window title is 'Aras Update' and it features the 'aras // UPDATE' logo. Below the logo, there is a text prompt: 'Enter the following parameters for each component you are going to install and then click Install button to continue.' The window contains two main sections, both with a checkmark icon and an expand/collapse arrow:

- Aras Innovator Code Tree Updates:** This section has a text label 'Path to ...\Innovator application directory' and a text input field containing 'C:\Program Files (x86)\Aras\Innovator'. To the right of the input field is a 'Browse...' button.
- Aras Innovator Database Updates:** This section has three text input fields:
  - 'Innovator URL' with the value 'http://localhost/InnovatorServer'
  - 'Database name of Innovator instance' with the value 'Solutions120SP18'
  - 'Innovator Username' with the value 'root'Below these fields is a label for 'Innovator Password' which is currently empty.

At the bottom of the window, there are three buttons: 'Back', 'Next', and 'Cancel'. The 'Next' button is highlighted in blue, indicating it is the active step.

11. Select the appropriate languages to install and click **Install**.



12. After the import is complete, disable the Super User login.

### 3.2.2 Manual Installation Option

1. Download the Aras Variant Management CD image from the Aras FTP site, in the `Aras Variant Management Releases` folder, and unzip the file on the local computer.
2. Copy the `Files\Innovator` folder to the root of your install directory, overwriting the existing `Innovator` folder and all its contents.

It is recommended that this step be performed by an administrator on the server.

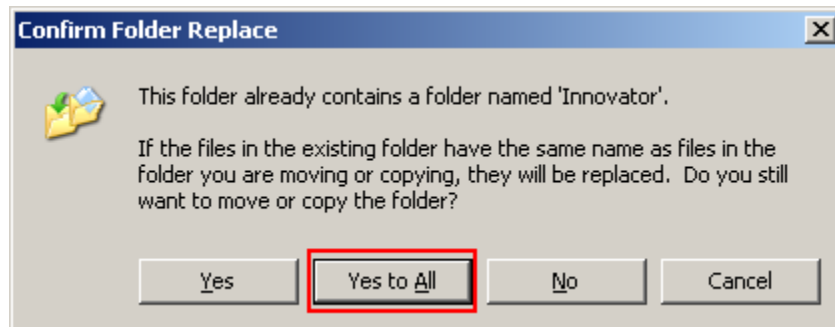


Figure 1.

3. From the root of your code tree, navigate to `\Innovator\Client` and edit the `web.config` file.
  - a. Change the value of the `filesRevision` attribute. The value should be changed from `std` to `2`, `3`, `4`, etc

```

...
    </runtime>
    <catchingModule moduleEnabled="true" filesRevision="2" />
</configuration>
    
```

- b. Save the changes to the `web.config` file and close it
4. Import the Variant Management database package with the Package Import Export Utilities (For more information using this tool, please see the *Aras Innovator - Package Import Export Utilities* documentation.)
  - a. You will need to enable the “Super User” login to perform this step.
  - b. Browse to the `\PackageImportExportUtilities\Import\` folder and run the `Import.exe` file

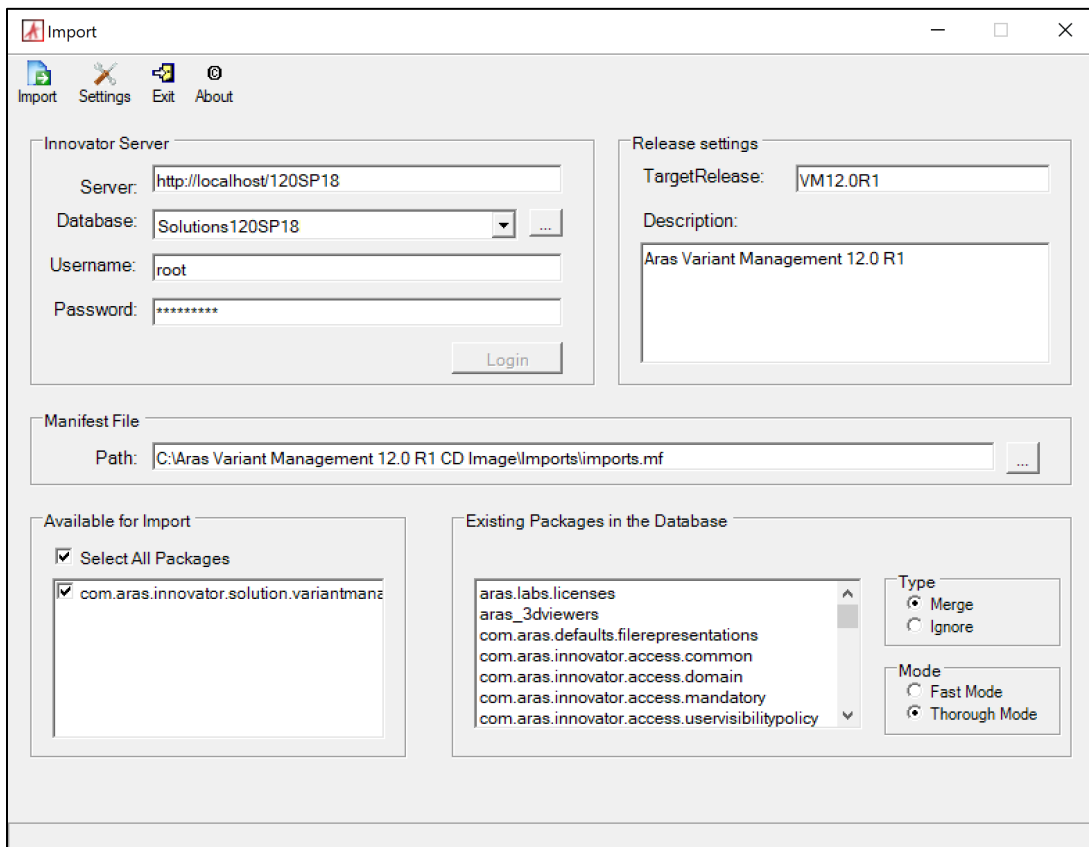


Figure 2.

- c. Enter the following information:
  1. Server = The connection URL for Aras Innovator
  2. Database = The target Aras Innovator database
  3. Username = root

4. Password = Password for “root” login (Default is “innovator”)
  5. Target Release = VM12.0R1
  6. Description = Aras Variant Management 12.0 R1
  7. Manifest File Path = The manifest is found in the unzipped patch folder in \Aras Variant Management 12.0R1 CD Image\Imports\imports.mf
  8. Available for Import = Check all packages
  9. Type = Merge
  10. Mode = Thorough Mode
- d. Click the **Import** button.
5. To apply Hotfix-006042.01, open the \Hotfix-006042.01\CodeTree folder.
  6. Copy the \Innovator folder to the root of your install directory.

**Note:** It is recommended that this an administrator perform this procedure on the server.

- a. Click **Yes** when prompted to merge the ‘Innovator’ folder.
  - b. Select the **Do this for all current items** check box and click **Yes** when prompted to merge the ‘Client’ folder.
  - c. Select the **Do this for the next ... conflicts** check box and click **Copy and Replace** when prompted **There is already a file with the same name in this location. Click the file you want to keep.**
7. Copy the \OAuthServer folder to the root of your install directory.

**Note:** It is recommended that this an administrator perform this procedure on the server.

- a. Click **Yes** when prompted to merge the ‘OAuthServer folder.
  - b. Click **Yes** when prompted to merge the ‘bin’ folder.
  - c. Select the **Do this for the next ... conflicts** check box and click **Copy and Replace** when prompted **There is already a file with the same name in this location. Click the file you want to keep.**
8. Copy the \VaultServer folder to the root of your install directory, overwriting the existing \VaultServer folder and all its contents.

**Note:** It is recommended that an administrator perform this procedure on the server.

- a. Click **Yes** when prompted to merge the ‘VaultServer’ folder.
  - b. Click **Yes** when prompted to merge the ‘bin’ folder.
  - c. Select the **Do this for the next ... conflicts** check box and click **Copy and Replace** when prompted **There is already a file with the same name in this location. Click the file you want to keep.**
9. Copy the \ConversionServer folder to the root of your install directory, overwriting the existing \ConversionServer folder and all its contents.

**Note:** It is recommended that an administrator perform this procedure on the server.

- a. Click **Yes** when prompted to merge the 'ConversionServer' folder.
  - b. Click **Yes** when prompted to merge the 'bin' folder.
  - c. Select the **Do this for the next ... conflicts** check box and click **Copy and Replace** when prompted **There is already a file with the same name in this location. Click the file you want to keep.**
10. Copy the \SelfServiceReporting folder to the root of your install directory, overwriting the existing \SelfServiceReporting folder and all its contents.

**Note:** It is recommended that an administrator perform this procedure on the server.

- a. Click **Yes** when prompted to merge the 'SelfServiceReporting' folder.
  - b. Click **Yes** when prompted to merge the 'bin' folder.
  - c. Select the **Do this for the next ... conflicts** check box and click **Copy and Replace** when prompted **There is already a file with the same name in this location. Click the file you want to keep.**
11. Copy the \AgentService folder to the root of your install directory, overwriting the existing \AgentService folder and all its contents.

**Note:** It is recommended that an administrator perform this procedure on the server.

- a. Click **Yes** when prompted to merge the 'AgentService' folder.
  - b. Click **Yes** when prompted to merge the 'bin' folder.
  - c. Select the **Do this for the next ... conflicts** check box and click **Copy and Replace** when prompted **There is already a file with the same name in this location. Click the file you want to keep.**
12. From the root of your code tree, navigate to \Innovator\Client and edit the web.config file.
- a. Change the value of the filesRevision attribute. The value should be changed from std to 2, 3, 4, etc

```
...  
</runtime>  
<キャッシングModule moduleEnabled="true" filesRevision="2" />  
</configuration>
```

13. Save the changes to the web.config file and close it.
14. Import the Hotfix-006042.01 database package with the Package Import Export Utilities (For more information using this tool, please see the *Aras Innovator - Package Import Export Utilities* documentation.)
- a. You will need to enable the "Super User" login to perform this step.
  - b. Browse to the \PackageImportExportUtilities\Import\ folder and run the Import.exe file

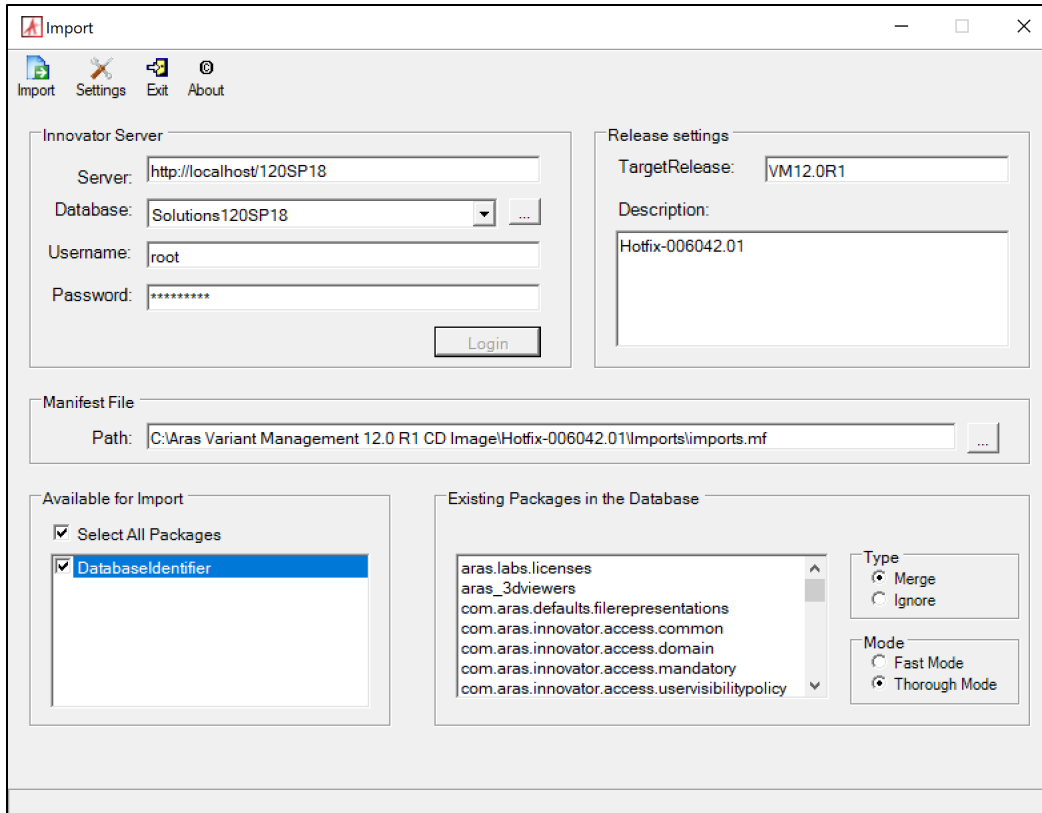


Figure 3.

c. Enter the following information:

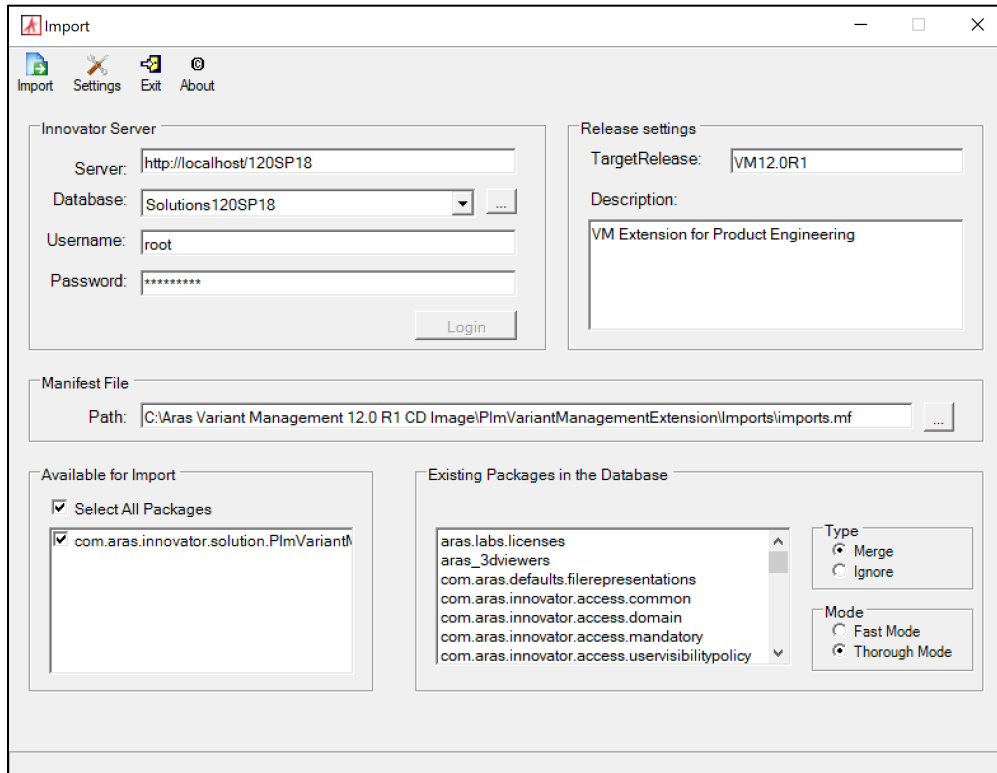
11. Server = The connection URL for Aras Innovator
12. Database = The target Aras Innovator database
13. Username = root
14. Password = Password for “root” login (Default is “innovator”)
15. Target Release = VM12.0R1
16. Description = Hotfix-006042.01
17. Manifest File Path = The manifest is found in the unzipped patch folder in \Aras Variant Management 12.0R1 CD Image\Hotfix-006042.01\Imports\imports.mf
18. Available for Import = Check all packages
19. Type = Merge
20. Mode = Thorough Mode

d. Click the **Import** button.

15. (Optional) Import the Variant Management Extension for Product Engineering database package with the Package Import Export Utilities. For more information using this tool, refer to the *Aras Innovator 12.0 - Package Import Export Utilities* documentation.

a. You need to enable the “Super User” login to perform this step.

- b. Browse to the \PackageImportExportUtilities\Import\ folder and run the Import.exe file.



- c. Input the connection information
- **Server** = The connection URL for Aras Innovator
  - **Database** = The target Aras Innovator database
  - **Username** = root
  - **Password** = Password for “root” login (Default is “innovator”)
  - **Target Release** = VM 12.0R1
  - **Description** = VM Extension for Product Engineering
  - **Manifest File Path** = The manifest is found in the folder  
 \PlmVariantManagementExtension\Imports\imports.mf
  - Available for Import = Check all items
  - **Type** = Merge
  - **Mode** = Thorough Mode
- d. Click the **Import** button.
16. Disable the “Super User” login

### 3.3 Configuring the Conversion Server

After you install Aras Variant Management, configure the conversion.config file as follows:

1. Open a Windows Explorer window to the root of the Aras Agent Service installation.
2. Open the \AgentService\the conversion.config file for editing.
3. Add a 'cycle' tag as follows:
  - a. **DB:** Aras Innovator Database
  - b. **User:** admin  
 Another Aras Innovator User can be specified as long as they are a member of the ConversionManager Identity and they have permissions to lock dependencies of ConversionTask Item which are added by ConversionRules.
  - c. **Interval:** Default is 120000 (set in milliseconds)  
 How often the Conversion Server checks if there are Conversion Tasks that need to be processed.
  - d. **Max Batch:** Default is 1  
 Number of Conversion Tasks that can be processed at the same time.
  - e. **Conversion Rule Name:** vm\_StringNotationSynchronizer

```
<configuration>
...
  <Innovator>
    <Conversion>
      <ProcessingCycles>
        <cycle DB="InnovatorSolutions" User="admin"
        Interval="120000" MaxBatch="1"
        ConversionRuleName="vm_StringNotationSynchronizer"/>
      </ProcessingCycles>
    </Conversion>
  </Innovator>
</configuration>
```

4. Save and close the conversion.config file.

## 3.4 Confirming the Installation

Use the following procedure to check if your database has been updated correctly:

1. Log in to Aras Innovator as an administrator.
2. Click on the user icon in the top-right corner → **About**
3. Confirm that the MS Build Number shown is 006042.01
4. From the TOC, select **Administration** → **Variables**.
5. Confirm the following sets of variables are listed:

<b>Variant Management</b>	<b>MSBuildNumber</b>
---------------------------	----------------------

12.0R1	006042.01
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If at any time the installation fails, revert to your backups and contact Aras Support at [support@aras.com](mailto:support@aras.com).

## 4 Post Installation

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It is recommended that you review the *Aras Variant Management 12.0 R1 – Administration Guide* after the installation is complete.

For end-users, the *Aras Variant Management 12.0 R1 - User Guide* is available in the Documentation folder of the CD Image.